Title (en)

HYDROGEN STORAGE MATERIALS HAVING A HIGH DENSITY OF NON-CONVENTIONAL USEABLE HYDROGEN STORING SITES

Title (de)

WASSERSTOFFSPEICHERMATERIAL MIT HOHER DICHTE VON UNKONVENTIONELLEN GEBRÄUCHLICHEN WASSERSTOFFSPEICHERSTELLEN

Title (fr)

SUBSTANCES DE STOCKAGE D'HYDROGENE AYANT UNE FORTE DENSITE DE SITES DE STOCKAGE D'HYDROGENE UTILISABLES, NON CONVENTIONNELS

Publication

EP 0862660 A4 19991110 (EN)

Application

EP 96940842 A 19961119

Priority

- US 9618703 W 19961119
- US 56061295 A 19951120

Abstract (en)

[origin: WO9719202A1] Disordered Multicomponent hydrogen storage material characterized by extraordinarily high storage capacity due to a high density of useable hydrogen storage sites (greater than 10<23> defect sites/cc) and/or an extremely small crystallite size, as shown on the graph in the figure. The hydrogen storage material can be employed for electrochemical, fuel cell and gas phase applications. The material may be selected from either of the modified LaNi5 or modified TiNi families formulated to have a crystallite size of less than 200 Angstroms and most preferably less than 100 Angstroms.

IPC 1-7

C22C 14/00; C22C 16/00; C22C 19/03; C22C 27/04; C22C 27/06

IPC 8 full level

C01B 3/00 (2006.01); **C22C 14/00** (2006.01); **C22C 16/00** (2006.01); **C22C 19/00** (2006.01); **C22C 27/06** (2006.01); **H01M 4/38** (2006.01)

CPC (source: EP KR US)

C01B 3/0031 (2013.01 - EP US); **C01B 3/0057** (2013.01 - EP US); **C01B 3/0084** (2013.01 - EP US); **C22C 14/00** (2013.01 - KR); **C22C 16/00** (2013.01 - KR); **C22C 19/03** (2013.01 - KR); **H01M 4/383** (2013.01 - EP US); B22F 2998/00 (2013.01 - EP US); Y02E 60/10 (2013.01 - EP); Y02E 60/32 (2013.01 - EP US); Y10S 420/90 (2013.01 - EP US)

C-Set (source: EP US)

B22F 2998/00 + B22F 9/10

Citation (search report)

- [X] EP 0671357 A1 19950913 - HYDRO QUEBEC [CA], et al
- [X] US 4637967 A 19870120 - KEEM JOHN E [US], et al
- [X] PATENT ABSTRACTS OF JAPAN vol. 018, no. 382 (E - 1580) 19 July 1994 (1994-07-19)
- See also references of WO 9719202A1

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Designated contracting state (EPC)

DE FR GB IT NL

DOCDB simple family (publication)

WO 9719202 A1 19970529; AU 1080397 A 19970611; AU 720523 B2 20000601; BR 9611732 A 19990223; CA 2236261 A1 19970529; CA 2236261 C 20050607; DE 69622184 D1 20020808; DE 69622184 T2 20030213; DE 862660 T1 19990107; EP 0862660 A1 19980909; EP 0862660 A4 19991110; EP 0862660 B1 20020703; JP 2000500531 A 20000118; JP 2002088430 A 20020327; JP 2002241874 A 20020828; JP 3278065 B2 20020430; KR 100419076 B1 20040701; KR 19990067686 A 19990825; MX 210393 B 20020920; MX 9803975 A 19980930; TW 303532 B 19970421; UA 59353 C2 20030915; US 5840440 A 19981124

DOCDB simple family (application)

US 9618703 W 19961119; AU 1080397 A 19961119; BR 9611732 A 19961119; CA 2236261 A 19961119; DE 69622184 T 19961119; DE 96940842 T 19961119; EP 96940842 A 19961119; JP 2001193639 A 20010626; JP 2001386615 A 20011219; JP 51990297 A 19961119; KR 19980703716 A 19980518; MX 9803975 A 19980519; TW 85102900 A 19960308; UA 98063164 A 19961119; US 56061295 A 19951120